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FISHING INDUSTRY IN NORTHEAST BRAZIL: UNEXPLOITED OPPORTUNITY 1/

SUMMARY

During the past few months increasing attention has been focused upon the deplorable condition of the fishing industry in the Northeast, an industry just now beginning to rouse itself from a 200 year slumber. Of the estimated 20,000 small craft engaged in commercial fishing in the Northeast, probably less than 3% are equipped with motors. Both total catch and exports are lagging. Northeasterners, though in great need of protein foods and though living along a coast fronting on rich fishing grounds, annually consume only some 4 ½ to 5 pounds of fish per person. Low export volumes result in a loss of much needed foreign exchange which could be used to help finance the development of the area.

The lobster industry is the most dynamic sector. It is beginning to move ahead and dollar earning exports are on the increase. Archaic methods, lack of capital and limited freezer space, however, presently limit expansion. Deep-sea fishing, including tuna, is at present carried on almost exclusively by the Japanese. The promising shrimp beds are exploited only haphazardly, there being, for all practical purposes, no organized shrimp industry in this area. Shrimp exports are negligible. Other types of seafood such as crabs, flying-fish, red-snapper, etc. are exploited only by individual fishermen using the most primitive of methods and operating on an unorganized basis.

The SUDENE has taken cognizance of the problem and hopes to move forward with a plan aiming at 1.) giving some co-ordination of effort to the industry; 2.) centralizing marketing facilities; 3.) financing the purchase of modern fishing vessels, including several of sufficient size to engage in deep-sea fishing; 4.) increasing refrigeration facilities; 5.) financing the modern-

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1/ Information supplied by United States Consulate General, Recife, Brazil.

ization of boats and equipment already in use; 6.) training personnel in modern techniques, etc. If successful, the SUDENE plan could help mold the Northeastern fishing industry into an important sector in the area's economy, one which could: 1.) do much in alleviating food shortages and providing a more balanced diet; 2.) bringing in significant sums of foreign exchange; and, 3.) provide more jobs for the large number of unemployed along the coast.

GENERAL PROBLEM

The Serviço de Estatistica da Producao estimated last year that there were some 154,220 Northeasterners directly engaged in the area's fishing industry. An estimated 20,000 small craft, mostly jangadas (small balsa rafts with one lateen sail) and small oar driven rafts ply the fishing grounds. Methods have changed little in the past 200 years. Fishermen are usually grouped in fishing "colonies" along the beach. At dawn three or four put out in each jangada, sail four to eight hours to the fishing grounds, fish or tend lobster traps two to six hours, and then spend another four to eight hours on the return trip. Thus, only two to six hours of their 14 to 18 hour day can be dedicated to fishing. Little or no ice is available and even if it were storage facilities on the tiny rafts are extremely limited. One hundred pounds of fish for a day's work is considered a good catch. Fishermen usually sell their catches right on the beach, or in the larger cities they may peddle them from door to door. Too, in some areas fish markets and packers send trucks out to the beaches to buy part of the day's labor. Some of the larger boats land their catches at receiving posts on the dock. It has been estimated, however, that total refrigerator storage space at the few existing public and private receiving posts in the Northeast totals only about 1,600 tons, some 800 tons of which is concentrated in the Recife area. Thus, such posts can handle only a small part of the catch.

With such primitive methods as those described above, overall production is dismally low. The Caixa de Credito da Pesca estimated the overall catch for the Northeast in 1958 as being 67,000 metric tons, some 31% of Brazil's total that year. Using these figures, it was estimated that productivity for the Northeast per man/year was only some 1,300 lbs. Though this figure is probably too low, it gives a general idea of per capita production. Even if the figure were several hundred kilograms higher, it would still compare poorly indeed with the averages of such sea-faring nations as Norway and Iceland where production is said to reach 60 metric tons per man/year. Low productivity per man is, of course, directly attributable to the primitive methods and unorganized conditions which have been allowed to characterize the fishing industry in this area. The industry has grown apace with the population, but it has not expanded its per capita output nor has it met the new demands placed upon it by changing social patterns. Before Japanese boats initiated operations in

these waters in 1956, for example, Recife, a city of almost one million inhabitants, had no assured source of supply, being served only by jangadas which might or might not bring in a good day's catch but which could never hope to bring in enough fish to satisfy the needs of a large city. The same was, and is, true in all the Northeastern coastal cities.

Not only have archaic methods resulted in low production, they have been both a cause and an effect of a miserable level of existence for the fishermen themselves. After a survey held in 1961, the Servico de Estatistica da Producao concluded that the average fisherman in the Northeast earned only Cr$1,000 to Cr$1,500 per month (about US$ 2.75 to 3.25, at present free market rates.). Again, this estimate is probably low, resulting from the fact that fishermen frequently underdeclare their catches and income. Nonetheless, relatively speaking it matters little whether the average fisherman earns US$ 3.00 per month or US$ 8.00. It is still very little. And with so little return for his labor, the fisherman cannot modernize his equipment or shift to more productive--but more expensive--techniques, and without doing so he cannot increase his catch and thus improve his lot in life: the timeless vicious circle. In many cases fishermen cannot even afford the purchase of their basic equipment which instead is supplied by middlemen who take up to 50% of the catch. Often these middlemen control prices paid the fishermen.

L O B S T E R

The lobster industry is one of the most promising in the Northeast and is displaying a certain dynamism that is most encouraging. Lobster are plentiful, but primitive methods have prevented Northeastern exporters from meeting export demands. Lobster exports from the Northeast only began in earnest during the last half of 1955 when some 40 metric tons of lobster tails were exported through the Port of Fortaleza to the United States. Exports passing through Fortaleza increased to 119 metric tons in 1956 and 265 tons in 1957. Exports through the Port of Recife began about the same time as those through Fortaleza, the first 68 tons having been shipped in 1956. All lobster exports from the Northeast continue to pass through either Fortaleza or Recife. According to the Departamento Estadual de Estatistica de Pernambuco some 500 metric tons were exported through the Port of Recife in 1960, while 470 tons were exported through Fortaleza between January and May of that year. Over 1,191 metric tons went through Fortaleza in 1961, bringing in some US$ 2,019,000. From Recife 487 metric tons were exported in 1961, bringing in US$ 832,410. Thus, total exports of lobster from the Northeast for 1961 can be estimated at roughly 1,678 metric tons, and foreign exchange thereby earned at US$ 2,851,410. Were the industry properly organized and equipped, both figures could at least be doubled.

At least three firms export lobster from Recife at the present time: Pesca Alto Mar Ltda.; INBRAPE--Industria Brasileira de Pesca e Frios; and Itapesca Comercio e Industria Ltda. Other firms are interested, however, and plan to begin exporting soon. In Fortaleza there are five principal exporters: Lagostas Verdes Mares; Produtos Maritimos do Brasil, S. A.; Pesca Alto Mar Ltda.; Cia. Brasileira Lagostabras; and Cia. Nacional de Pesca e Exportacao.

The packers buy their lobster from individual fishermen and cooperatives. As far as is known there is no set "contracted" price for the lobster. The catches are picked up by agents in trucks and cars who deliver the lobster to the processing plants. What is not picked up by packers is usually sold right on the beach in the open-air markets. Most of the lobsters are caught near the shore line by wading fishermen or by fishermen operating from jangadas. Off shore reefs are also choice locations for lobster traps. There are no official seasons, but maximum catches are usually brought in from September through February. Unofficial estimates quoted in various local newspapers place the number of jangadas engaged in the lobster industry in the Ceara area at about 1,200 and the number of lobstermen at 5 to 6,000. About 800 to 900 jangadas are so engaged in the Pernambuco area, and some 4,000 to 5,000 fishermen. A good percentage of the lobster exported through Recife comes from Paraiba (the Governor of that State claims 80%), and probably a similar number of jangadas and fishermen are involved in lobstering in that State. As an indication of the progress recently made in the lobster industry, it should be noted that during the past year over 250 small inboard motors have been installed in jangadas and other small craft dedicated to lobstering. In most cases motorization has been financed by the packers.

There are no Brazilian Government restrictions on the export of lobster, though there is a small export tax. Two major factors presently limit the expansion of lobstering: 1.) a critical shortage of freezer space, and 2.) a lack of organized and modern methods. In spite of the obvious possibilities of the industry, until very recently there seemed to be no one willing to make the investment necessary to set up more freezer space, arrange for greater and more frequent transportation facilities between the Northeast and the market in the United States, etc. Too, fishermen are paid so little that they have no capital with which to expand their operations. One local expert on Northeastern fisheries declared in a letter to Jornal do Comercio on December 17, 1961, that the big packing houses, in an effort to squeeze out every possible cent of profit, were actually working against the best interests of the industry. They pay the lobstermen only Cr$60 per kilo, he said, (now up to almost Cr$100) while selling it in the United States for US$ 2.00 to $3.00 (approximately Cr$700 to 1,050). Even after costs of processing and transportation are considered, the margin of profit is still well in excess of 300%. By paying the lobstermen so little, they perpetuate

restricted productions--as well as a low standard of living for the fishermen. A fair price should be worked out--one which would be high enough to permit modernization and expansion, but not so high as to close off lobster from the less lucrative domestic market. Fortunately, a growing number of packers seem to understand the logic of this argument and are adjusting their policies accordingly.

Another problem which faces the lobstering industry in the Northeast is conservation. A recent decree of the Brazilian Government forbade the harvest of lobster from the month of February until May, describing those months as the reproductive period. A hue and cry was raised in the Northeast against the measure, the general argument against it being that very little is known about the time period of the reproductive cycle. Even prominent marine biologists in the area have declared that there is little reason to believe that reproduction takes place between February and May. Taking these arguments into consideration, the decree was cancelled. The fact remains, however, that some conservation scheme is needed. At present, fishermen are forbidden - technically at least - from taking egg-bearing lobster; a restriction commonly ignored. Living on such a precarious level, and bringing in such a small catch that each and every lobster is of vital importance to his earning power, the Northeastern lobsterman is not prone to throw back female lobster which happen to be bearing eggs.

S H R I M P

"Industry" as applied to shrimping in the Northeast is probably a misnomer. There is no organized industry. The catch is brought in by a few boats which intermittently dedicate themselves to shrimping, and by boats whose nets happen to bring in quantities of shrimp along with fish. In such hit-or-miss fashion 6,613 metric tons of shrimp were landed in the Northeast in 1958, 6,403 metric tons in 1959 and an estimated 10,000 metric tons in 1960. As yet no figures are available for 1961. Exports are negligible.

Again, the opportunities and resources are great, but have not been capitalized upon. It is to be hoped that the nucleus of a modern shrimping fleet will soon be organized in the State of Maranhao. Financing and technical advice are needed.

DEEP-SEA FISHING: TUNA.

There are at least two excellent deep-sea fishing grounds off the Northeastern shore. One, called the summer grounds, is exploited from July until January. It is parallel to and some 150 miles from the Brazilian north coast, about 100 miles wide at its southern extremity, which is approximately 150 miles north of the Island of Fernando de Noronha, and about 200 miles wide at its northern extremity, which is opposite the mouth of the Amazon. The winter grounds are exploited from February until June. These grounds are only some 50

miles wide and are located due south of Fernando de Noronha, with their southern extremity just opposite the mouth of the Sao Francisco River.

In spite of these rich grounds, there is no organized Brazilian deep-sea fishing industry in the Northeast and, consequently, no Brazilian tuna industry. A Japanese company, Nipon Reizzo, signed an agreement with the Brazilian Government in 1956 and Japanese boats began bringing in capacity catches of tuna in that same year. In January of 1957 the INBRAPE company was formed. In effect, INBRAPE, though chartered as a Brazilian company, is the Brazilian subsidiary of Nipon Reizzo. Actually, INBRAPE is only a distributing company. It handles the catches brought in by the boats owned by Nipon Reizzo, paying for them in dollars. The Japanese fishermen soon began landing more fish than limited freezer space in the Northeast could accommodate. Between August of 1956 and August of 1957 only some 2,013 metric tons were landed in the major coastal cities of the Northeast, some 85% being tuna and the other 15% marlin and swordfish. By 1958, however, the Japanese, with some 7 to 11 large modern fishing boats in operation, were landing 1,500 tons per month in an area where monthly consumption had been limited to about 750 tons per month. Problems soon developed: 1.) there was insufficient freezer storage space; 2.) the Japanese claimed the price set by the Brazilian Government was too low; 3.) the Brazilians claimed that the Japanese were not living up to the stipulations of their contract, that they were not nationalizing their boats and crews as agreed, and that in some cases they were illegally selling their catches outside Brazil, etc. Nationalist sentiment has built up against the Japanese and at the present time public sentiment is running high against them. The Brazilian Government is insisting upon nationalizing Japanese boats in accordance with the original terms of their contract. The Japanese apparently want to nationalize four boats. There has been some talk, however, of the Japanese pulling out altogether, speculation which the Japanese have been quick to deny. (The present status of the Japanese fishing complex in the Northeast will be the subject of a separate despatch.)

Whoever is right in this dispute, the fact remains that the Japanese have proven that there are rich tuna and other deep-sea fishing grounds off the Northeastern shore. The fact also remains that at the present time there is no native fishing fleet to replace the Japanese. Again, broad opportunities have been ignored. A few Brazilian boats have exploited the off-shore fishing grounds, but private entrepreneurs have been unwilling to make the necessary investment to organize a deep-sea fishing fleet. With a properly organized fleet bringing in large volumes of less expensive fish with which to feed the protein hungry population of the Northeast it would be possible to set aside the majority of the tuna catch for dollar-earning export. As it is, most of the tuna is consumed locally and exports are limited to negligible quantities.

WHALING

Some whaling is carried on, on a small scale. A whaling factory has operated in the State of Paraiba for some 20 years. It was taken over about two years ago by the Japanese (INBRAPE) who are now processing about 500 whales per year. Most are animals weighing between one and three tons. Most oil and whale meat thus derived are sold domestically, though in 1960 some whale meat was exported to the United States.

SUDENE PLAN

The SUDENE has formulated a plan to develop the fishing industry in the Northeast and is now beginning to move forward with the plan's first stage--in spite of the fact that financing has been found for less than half the projects called for in the first year. During this initial stage SUDENE hopes to: 1.) construct along the coast 20 to 30 additional receiving posts with freezer storage space and ice-making facilities; 2.) to establish a credit fund--including contributions from private companies--with which individual fishermen and co-operatives can purchase more modern equipment, motorize their boats, etc.; 3.) to finance the purchase of additional boats; 4.) to re-equip the Fisheries School at Tamandare and begin training personnel to man a modern fishing fleet; 5.) to make more fish available to the population in the interior by stepping up the output of salted fish and by improving means of transportation; and 6.) to conduct surveys and investigations which will assist the fishing industry to develop along disciplined and scientific lines.

The first phase will cost an estimated Cr$1 billion (approximately US$ 2,857,000 at present free market rates).

CONCLUSIONS

The problem is clear-cut. The Northeast needs more food and foreign exchange. The grossly under-exploited fishing industry could help provide both. SUDENE has taken cognizance of the problem and is doing what it can with present resources to build the Northeastern fisheries into a viable productive unit. Any degree of success cannot but be of great benefit to the Northeast. Outside financial and technical assistance would be most helpful, and it would be difficult to find a sector of the economy in which such immediate and visible results could be achieved. A modern fishing fleet and more fish are things the public can readily see and appreciate.

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